DIGITAL TRANSFORMATION AT HUS, HELSINKI UNIVERSITY HOSPITAL

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27,000 PROFESSIONALS WORK AT HUS IN THE BEST INTEREST OF ALL PATIENTS.

HUS

AGENDA

- What is HUS is and what is done in HUS?

- A process-driven way to develop digital services. Digital and physical services are designed together to fit together.

- Rapid introduction of new digital innovations into clinical use

    - Research ability

    - Data

    - Ability to operate as a manufacturer - ISO 13485 certification

    - Ability to integrate into care – Health Village

- Recent achievements prove the excellence of the Health Village concept.

2019

1/3 OF FINLAND'S SPESIALIZED CARE
2,9 M PATIENT VISITS

HUS

92,000 surgeries

453 organ transplants

16,000 childbirths

24.5 million laboratory tests

1.8 million imaging examinations

680,000 PATIENTS TREATED

860, 000 treatment days

27,000 EMPLOYEES
HUS is the 2nd largest employer in Finland.

330,000 elective referrals
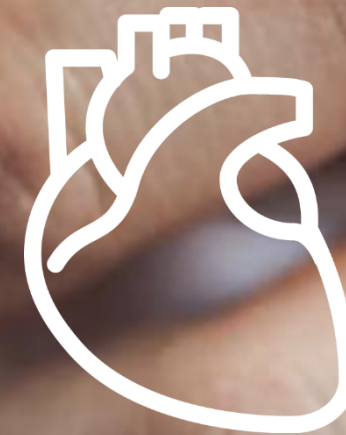
82,000 emergency referrals

2,800 hospital beds

3   27.5.2020

IN ADDITION TO LOCAL SERVICES, HUS SERVES AS NATION-WIDE PROVIDER

- Organ transplantations

- Treatment of severe burns

- Allogeneic stem cell transplantations (bone marrow)

- Invasive diagnostics and surgical treatment of epilepsy

- Infant open-heart surgeries and other demanding pediatric heart surgeries

- Demanding invasive fetal testing and treatment

- Planning of treatment and surgical treatment of patients with cleft lip and palate

453

Organ transplants and 30 heart transplants in 2019

HUS

WE EDUCATE AND PERFORM RESEARCH

As a university hospital, we study and develop our treatment methods and operation continuously. Our expertise is internationally renowned and recognized.

- 3,385 published scientific articles
- 138 doctoral dissertations
- 198 specialized physicians and 14 other specialized professionals got heir licences

Digitalization is key enabler in HUS strategic targets

Proven to provide best medical care and service

Best community for learning, research, and meaningful work

Promoting health efficiently and effectively

Our responsibility for the common good

Customer-driven digital change

HUS PERSPECTIVE ON DIGITALIZATION

- Cost savings

  - Benefits of scale, reduce manual and double work

- Better quality of care

  - Such as digital obesity treatment pathways, which lead to better outcomes and the ability to treat more than 30% more patients

  - More structured pathways

  - Automatic reminders, checks, workflow, AI

  - Patient involvement

- Offering easy, low barrier access to care

  - Web-therapies, mental health treatment paths, transparency of own data

The Epic Patient Management and Reporting System and the Health Village (digital care) are two different things, but both are needed.

HOW TO COPE WITH AN OVERWHELMING DIGITALIZATION CHALLENGE

- Hospital IT environment has been developed over time by constantly adding new elements to it

- Change is the only constant as new innovations are being introduced daily

- Hospital staff has difficulties in fitting the new tools to existing processes

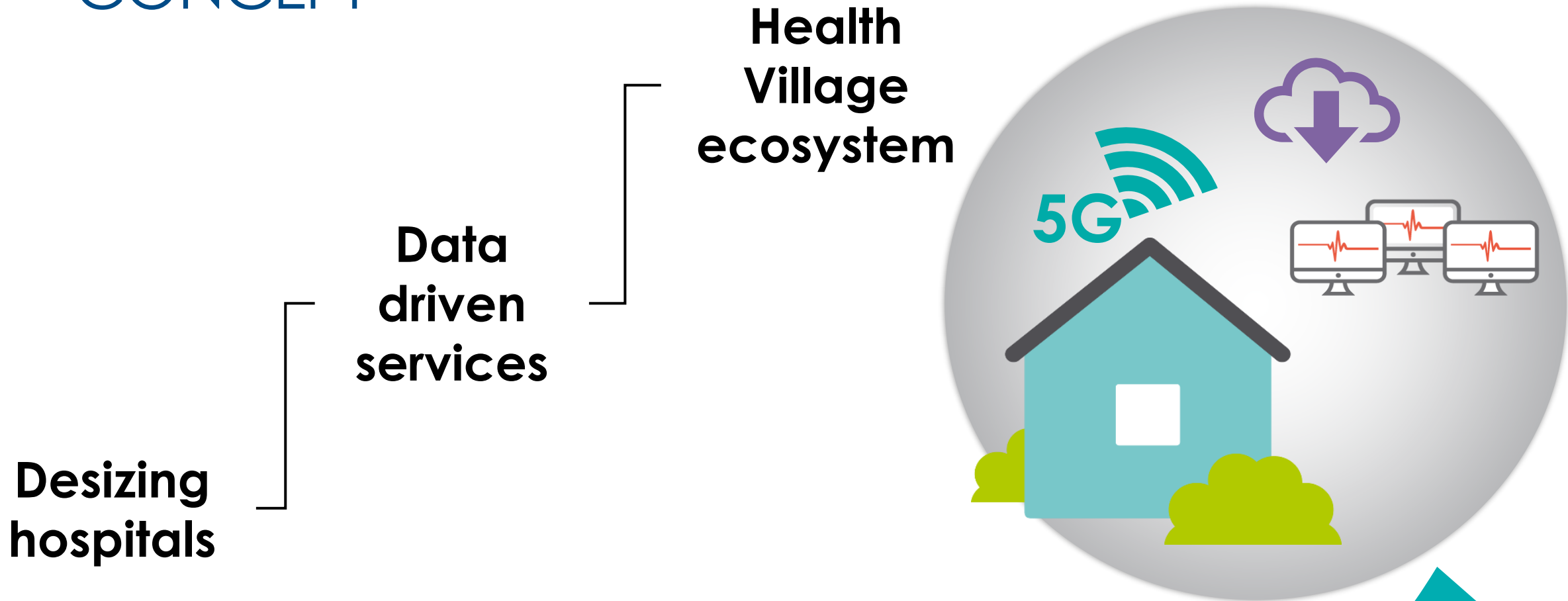Our answer is →

DIGITAL HEALTH VILLAGE

HEALTH VILLAGE PLATFORM

- Global and customizable
- Brings together
  - best professionals
  - latest information
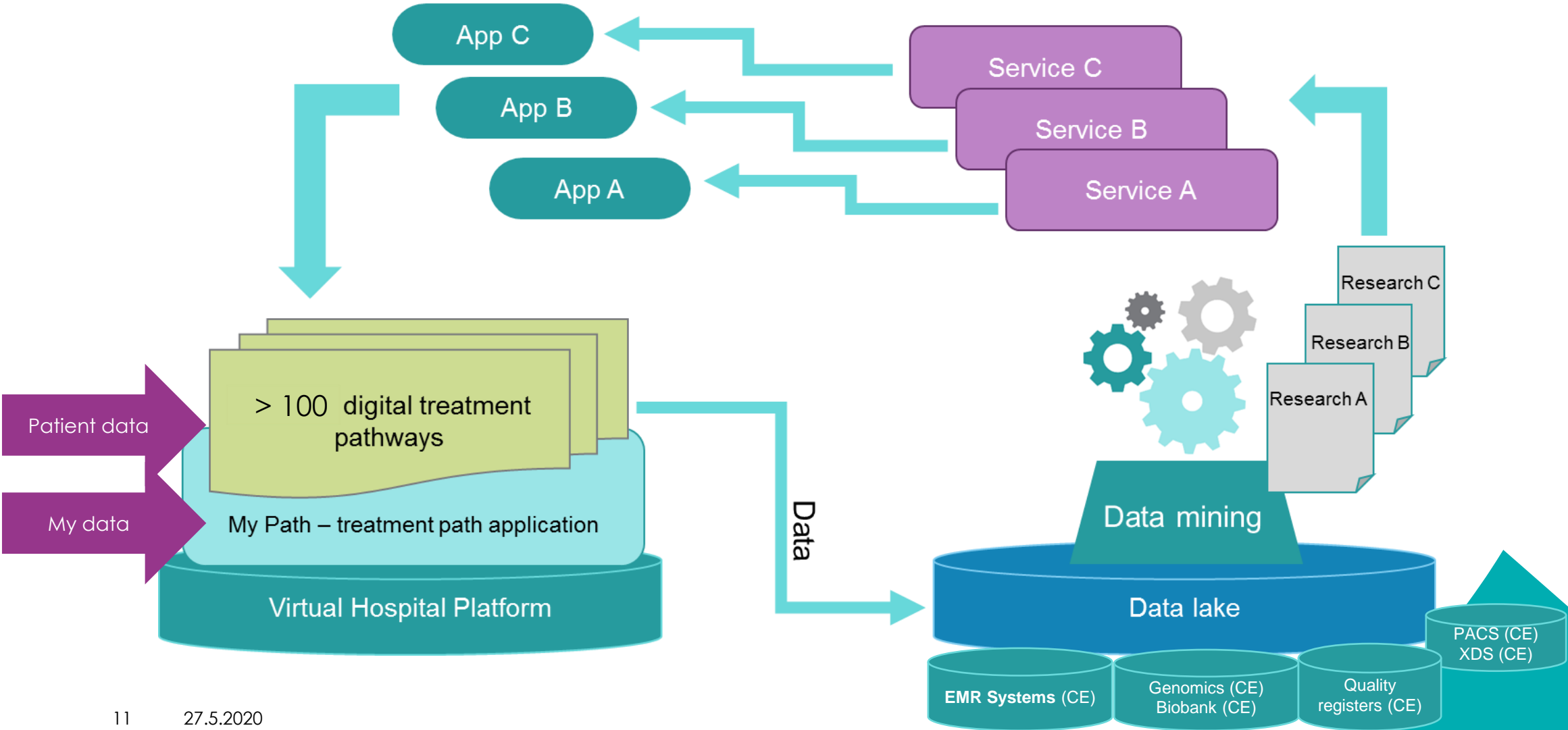 - improved digital and physical local care for patients.

Health Village is revolutionizing healthcare

- Unifies processes
- Avoids entropy of the ICT environment
- Creates a baseline for digital workflows
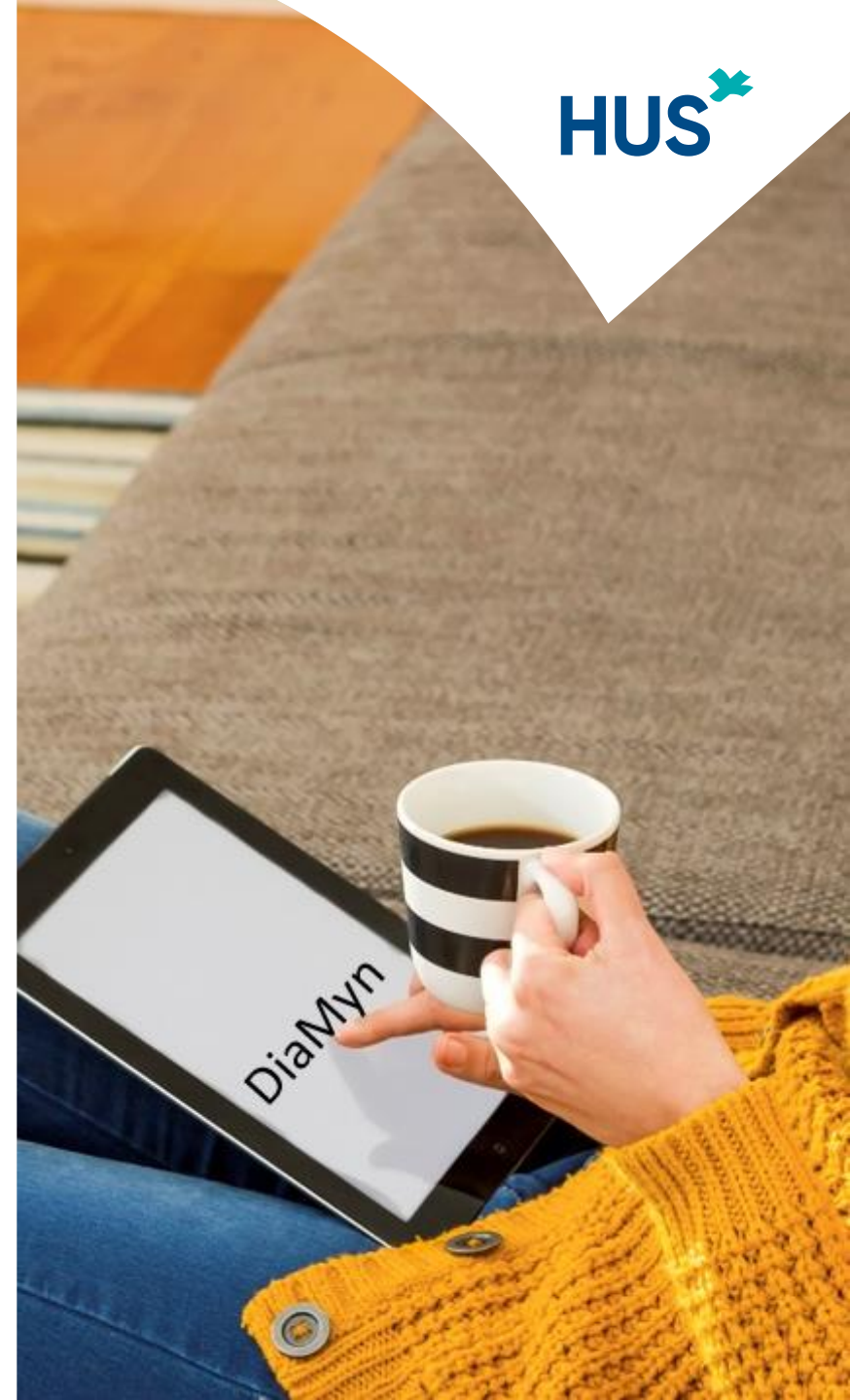
HUS

EVOLUTION OF THE HEALTH VILLAGE CONCEPT

Health Village ecosystem

Data driven services

Desizing hospitals

5G

"HEALTH VILLAGE CARE PATH FACTORY"

HUS

App C

App B

App A

Service C

Service B

Service A

Research C

Research B

Research A

Patient data

My data

> 100 digital treatment pathways

My Path – treatment path application

Virtual Hospital Platform

Data

Data mining

Data lake

EMR Systems (CE)

Genomics (CE)
Biobank (CE)

Quality registers (CE)

PACS (CE)
XDS (CE)

EXAMPLES OF DIGITAL CARE PATHWAYS

Over 100 digital care pathways running and in use.

- **Neurology**: iReNe – digital care pathway for neuropsychological rehabilitation
- **Dialysis:** DiaMyn – three digital care pathways for home dialysis
- **Headache**: HeaTher – digital care pathway for headache therapy
- **Diabetes:** eDia Kids Pump – digital care pathway for children's insulin pump
- **Asthma:** Asthma Care Pathway

RECENT ACHIEVEMENTS PROVE THE EXCELLENCE OF THE HEALTH VILLAGE CONCEPT

COVID-19 pandemic challenged us to quickly improve services to help fight coronavirus, e.g.

- Coronabot (assessment of the likelihood of infection)

- Mental support program for COVID-19 (Created by our IT psychiatry unit. Intended for citizens to help them process any worries and anxiety caused by the coronavirus situation.)

- Service bot (Guides the patient in matters related to the services provided by HUS during exceptional circumstances caused by the coronavirus pandemic.)

- COVID-19 sampling control and infection monitoring software service

All up and running in less than two months!

Coronabot helps you determine the likelihood that you have contracted the virus